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UpFront

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Asthma Rates Increase in Urban Youth

Researchers from the Center for Health and Global Environment (CHGE) at Harvard Medical School released a report this April stating that U.S. children, particularly minority and low-income urban children, are being diagnosed with asthma at "epidemic" proportions. The study attributes the increase in asthma development to high levels of pollen and mold combined with polluted urban air masses caused by fossil fuels emitted from motor vehicles and industrial facilities.

Under-diagnosed Mental Illness Sweeps Nations

Ronald Kessler, PhD, a researcher at Harvard University Medical School, led a research project from 2001 to 2003, that studied the prevalence of mental disorders among people in varying nations. The countries included in the study were Belgium, China, Colombia, France, Germany, Italy, Japan, Lebanon, Mexico, the Netherlands, Nigeria, Spain, Ukraine, and the United States.

Kessler's cross-national comparison used face-to-face surveys conducted in the homes of 60,463 adults. The study, recently published in the *Journal of the American Medical Association*, concluded that, in more than half of the countries surveyed, more than 10% of the population are affected by mental illness.

Of the countries included in Kessler's study, Nigeria showed the least number (4.7%) of people with mental illness; however, researchers note that West Africans are less likely to confide in strangers due to violence and cultural concerns. The United States showed a very high rate of depression at 26.4%.

Common conditions found among all 14 countries were predominantly anxiety disorders, including panic attacks, phobias, and post-traumatic stress disorder. An exception was found in Ukraine, where depression topped the list. According to Kessler, the prevalence of mood disorders in Ukraine could be due to the struggle with westernization and rampant unemployment.

T. Bedirhan Ustun, MD, Kessler's colleague and researcher at the World Health Organization, believes that many people could have been untruthful on their surveys. According to Ustun, many countries have certain stigmas with mental illness, and they are reluctant to admit having a problem.

Ustun notes that, in the U.S., mental illness is highly publicized, and, therefore, people are more open about disclosing such disorders. Taking this into consideration, mental illness might not be that much higher in the U.S. than in other countries.

However, Kessler says that it is also possible that the U.S. population is under the pressure of higher expectations, thereby causing more anxiety issues.

The unwillingness to admit mental illness adds to the numbers of populations remaining untreated. In a 2003 research article by Kessler, published in *Health Affairs*, he reports that across all countries studied, young, poorly educated males are the least likely to be treated for serious mental disorders.

Lack of access to transportation, inadequate insurance coverage for mental health care, and doctors who fail to detect mental disorders, are also reasons for under-treatment, according to both researchers. Ustun iterates that "better health care systems and training" are imperative.

Light Therapy Used to Treat Depressed Pregnant Women

Depression during pregnancy and post-partum depression are common, but treating the condition can be challenging, according to Katherine L. Wisner, M.D., psychiatrist at the University of Pittsburgh School of Medicine. Particularly in pregnant women, the use of antidepressants can pose a risk, so Wisner and colleagues from Yale University and Columbia University are conducting a research study on the power of light therapy and its use to fight depression.

Light therapy provides a safe alternative to chemical treatments for depression, according to Wisner. "I've become absolutely excited about the possibility of showing that it's an effective treatment for depression in pregnancy and that we might spare many women medication treatments during pregnancy."

Thus far, patients who have reported using light therapy, have showed favorable results. One patient participating in Wisner's study reports that she noticed a difference in her moods in as little as three weeks of light therapy use.

The lights used for such therapy are special lights, and not just any type of light will work, according to Wisner. For best results, the patient must expose herself to the lights within 10 minutes of waking up in the morning, and the therapy is not recommended without the guidance of a doctor trained in light therapy administration.

For more information, or to enroll in the ongoing study, visit http://www.pregnancylight.org/.

Possible Explanation for Early Morning Heart Attacks

According to the American Heart Association (AHA), "a heart attack occurs when the blood supply to part of the heart muscle itself-the myocardium-is severely reduced or stopped." Most heart attacks and strokes occur in the early morning, and Mayo Clinic researchers have found a possible explanation for this occurrence.

Virend Somers, MD, PhD, a cardiologist at the Mayo Clinic and the leader of a study published in the June 1, 2004 issue of *Circulation: Journal of the American Heart Association*, reports that heart attacks and stroke are 30-50% more likely to occur in the early morning than later in the day. Somers and colleagues believe that a decrease in flexibility of blood vessels may be a key factor in the incidence of early morning heart attacks. The study recorded the blood vessel expansion in 30 healthy, non-smoking adults.

"The human body maintains a balance of blood pressure and blood flow by expanding or contracting blood vessels," says Somers. "Much of this expansion is directed by a layer of cells called the endothelium, which lines the blood vessels."

After taking measurements of blood vessel expansion caused by the endothelium in the 30 study participants, researchers found that endothelial function was reduced by more than 40% in the early morning, but by late morning, its function returned to normal.

While Somers and colleagues are not yet positive how these observations relate to people with cardiovascular disease, they have determined that reduced early morning function of the endothelium is a possible cause of attacks. Somers intends to continue this research.